

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269



Scaled data based on original data using
LM-79-2024 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions

Brand: NEO-RAY

Report Number: P243644

Luminaire Tested: S125DRP-H1270D840-X4F0-XX-UDD-F-W

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-2024
Report Number: P243644
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-51)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S125DRP-H1270D840-X4F0-XX-UDD-F-W
Description: DEFINE 5 DIRECT RECESSED WITH SATIN FLUSH DIFFUSER.
HIGH PERFORMANCE LIGHT ENGINE
Light Source: (184) 4000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

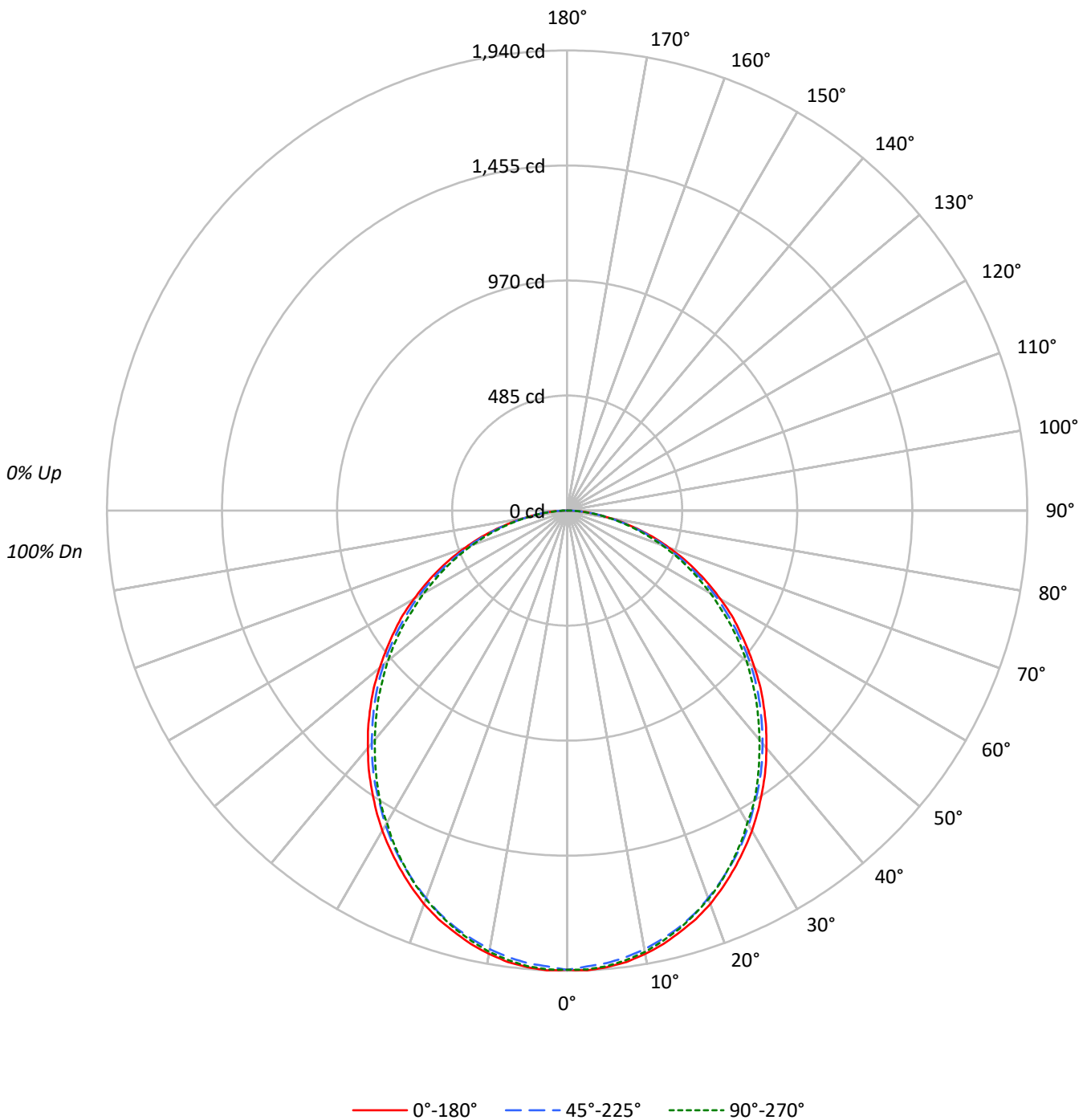
Lumens per Lamp: N/A
Luminaire Lumens: 4997.8 lumens
Efficiency: N/A
Efficacy: 132.6 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.17 / 1.3
Luminous Opening: Rectangular (W 0.39' x L: 3.88' x H: 0')
CIE Type: Direct

Input Watts (W): 37.7
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT

TEST NUMBER: P243644

CATALOG NUMBER: S125DRP-H1270D840-X4F0-XX-UDD-F-W

Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20	
RC	80				70				50				30				10	0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	109	104	100	96	106	102	98	95	98	95	92	94	91	89	90	88	86	84
2	99	91	84	79	97	89	83	78	86	80	76	82	78	74	79	76	73	70
3	91	80	72	66	88	79	71	65	76	69	64	73	67	63	70	66	62	60
4	83	71	63	56	81	70	62	56	67	60	55	65	59	54	63	58	53	51
5	77	64	55	48	74	63	54	48	61	53	48	59	52	47	57	51	47	44
6	71	58	49	42	69	57	48	42	55	47	42	53	46	41	52	46	41	39
7	66	52	44	38	64	51	43	37	50	43	37	49	42	37	47	41	37	35
8	61	48	39	34	60	47	39	33	46	38	33	45	38	33	43	37	33	31
9	57	44	36	30	56	43	36	30	42	35	30	41	35	30	40	34	30	28
10	54	41	33	28	52	40	33	27	39	32	27	38	32	27	37	31	27	25

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	13761	13761	13761
5°	13783	13661	13752
10°	13696	13553	13635
15°	13535	13389	13431
20°	13344	13151	13182
25°	13066	12877	12856
30°	12789	12567	12474
35°	12460	12239	12128
40°	12125	11888	11703
45°	11793	11537	11323
50°	11403	11168	10916
55°	11018	10720	10438
60°	10601	10299	9935
65°	10106	9747	9413
70°	9476	9121	8825
75°	8738	8463	8073
80°	7617	7560	7384
85°	6605	6605	6255

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 11793 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	182.6	3.7
10°-20°	515.5	10.3
20°-30°	759.8	15.2
30°-40°	884.9	17.7
40°-50°	886.7	17.7
50°-60°	775.2	15.5
60°-70°	575.3	11.5
70°-80°	326.3	6.5
80°-90°	91.5	1.8
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	1457.9	29.2
0°-40°	2342.8	46.9
0°-60°	4004.7	80.1
0°-90°	4997.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4997.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1936	1936	1936	1936	1936	
5°	1932	1929	1915	1929	1928	183
15°	1840	1837	1820	1830	1825	519
25°	1666	1661	1642	1646	1639	768
35°	1436	1428	1411	1402	1398	899
45°	1173	1170	1148	1131	1126	905
55°	889	888	865	847	842	796
65°	601	597	580	567	560	596
75°	318	312	308	303	294	337
85°	81	81	81	78	77	94
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1936.1	1936.1	1936.1	1936.1	1936.1
2.5°	1940.4	1937.6	1923.4	1937.6	1936.1
5°	1931.9	1929.0	1914.8	1929.0	1927.6
7.5°	1919.1	1914.8	1899.2	1913.4	1910.6
10°	1897.8	1894.9	1877.9	1889.3	1889.3
12.5°	1872.2	1868.0	1850.9	1860.8	1859.4
15°	1839.5	1836.7	1819.7	1829.6	1825.3
17.5°	1805.4	1798.3	1782.7	1791.2	1785.6
20°	1764.3	1758.6	1738.7	1745.8	1742.9
22.5°	1717.4	1710.3	1691.8	1696.1	1694.7
25°	1666.2	1660.6	1642.1	1646.4	1639.3
27.5°	1613.7	1606.6	1589.5	1589.5	1582.4
30°	1558.3	1551.2	1531.3	1531.3	1519.9
32.5°	1498.6	1492.9	1468.8	1467.4	1464.5
35°	1436.1	1427.6	1410.6	1402.0	1397.8
37.5°	1373.6	1366.5	1348.1	1336.7	1329.6
40°	1306.9	1302.6	1281.3	1271.3	1261.4
42.5°	1241.5	1237.3	1214.5	1197.5	1193.2
45°	1173.3	1170.5	1147.8	1130.7	1126.5
47.5°	1105.1	1102.3	1079.6	1061.1	1054.0
50°	1031.3	1031.3	1010.0	991.5	987.2
52.5°	960.3	958.8	937.5	919.1	914.8
55°	889.2	887.8	865.1	846.6	842.4
57.5°	822.5	813.9	794.1	779.9	765.6
60°	745.8	741.5	724.5	706.0	698.9
62.5°	674.7	669.1	652.0	636.4	626.4
65°	600.9	596.6	579.6	566.8	559.7
67.5°	531.3	525.6	508.5	498.6	492.9
70°	456.0	451.7	438.9	426.1	424.7
72.5°	389.2	383.5	376.4	365.1	359.4
75°	318.2	312.5	308.2	302.6	294.0
77.5°	250.0	247.2	244.3	240.1	235.8
80°	186.1	186.1	184.7	181.8	180.4
82.5°	132.1	133.5	129.3	126.4	126.4
85°	81.0	81.0	81.0	78.1	76.7
87.5°	39.8	35.5	35.5	32.7	32.7
90°	0.0	0.0	0.0	0.0	0.0



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CIE UGR TABLE:

Reflectances:											
Ceiling		0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3
Wall		0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3
Reference plane		0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Room dimensions		Viewed crosswise					Viewed endwise				
X=2H	Y=2H	20.42	22.03	20.78	22.35	22.66	20.08	21.70	20.45	22.01	22.32
	3H	22.17	23.63	22.55	23.96	24.32	21.79	23.25	22.17	23.58	23.94
	4H	22.82	24.20	23.22	24.55	24.92	22.43	23.80	22.83	24.15	24.53
	6H	23.29	24.56	23.70	24.92	25.31	22.91	24.18	23.32	24.54	24.93
	8H	23.44	24.65	23.86	25.04	25.44	23.06	24.28	23.49	24.66	25.06
	12H	23.54	24.70	23.97	25.08	25.51	23.16	24.33	23.59	24.71	25.14
4H	2H	20.99	22.36	21.39	22.71	23.09	20.72	22.10	21.12	22.44	22.82
	3H	22.97	24.12	23.38	24.52	24.92	22.65	23.80	23.06	24.20	24.60
	4H	23.75	24.79	24.18	25.20	25.64	23.42	24.46	23.85	24.87	25.31
	6H	24.34	25.25	24.79	25.69	26.14	24.02	24.93	24.48	25.37	25.83
	8H	24.53	25.39	25.00	25.83	26.29	24.22	25.07	24.68	25.51	25.98
	12H	24.68	25.44	25.16	25.92	26.39	24.37	25.13	24.85	25.61	26.07
8H	4H	24.03	24.88	24.49	25.32	25.79	23.74	24.59	24.20	25.03	25.50
	6H	24.74	25.45	25.23	25.93	26.41	24.46	25.17	24.96	25.66	26.13
	8H	25.01	25.65	25.52	26.15	26.64	24.73	25.37	25.24	25.87	26.36
	12H	25.23	25.79	25.74	26.28	26.84	24.95	25.51	25.46	26.00	26.56
12H	4H	24.06	24.82	24.54	25.30	25.77	23.78	24.54	24.26	25.02	25.49
	6H	24.79	25.42	25.30	25.93	26.42	24.52	25.16	25.03	25.66	26.15
	8H	25.12	25.68	25.62	26.17	26.73	24.85	25.41	25.36	25.90	26.46